



# Household financial resources methodology

Reference period June 2020

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The preliminary estimates in this release are from the 2019-20 Survey of Income and Housing (SIH). Final estimates will be released from mid-2021, in [Household Income and Wealth, Australia \(/statistics/economy/finance/household-income-and-wealth-australia/2017-18\)](#) and [Housing Occupancy and Costs, Australia \(/statistics/people/housing/housing-occupancy-and-costs/latest-release\)](#).

Feedback

## How the data is collected

### Scope

The scope of the survey includes:

- all usual residents in Australia aged 15 years and over living in private dwellings
- both urban and rural areas in all states and territories, except for very remote areas of Australia and discrete Aboriginal and Torres Strait Islander communities.

The survey excludes the following:

- visitors to private dwellings
- overseas visitors who have not been working or studying in Australia for 12 months or more, or do not intend to do so
- members of non-Australian defence forces stationed in Australia and their dependants
- non-Australian diplomats, diplomatic staff and members of their households
- people who usually live in non-private dwellings, such as hotels, motels, hostels, hospitals, nursing homes and short-stay caravan parks
- households in very remote areas

- households in discrete Aboriginal and Torres Strait Islander communities.

The exclusion of very remote areas is unlikely to impact on national estimates, and will only have a minor impact on any aggregate estimates that are produced for individual states and territories, except the Northern Territory where the excluded population accounts for around 21% of the population.

## Sample design

The SIH was enumerated across the 2019-20 financial year. Dwellings were selected at random using a multistage area sample of private dwellings.

The annual sample was designed to:

- be representative of income patterns across the financial year
- produce national estimates that have a relative standard error (RSE) no greater than 5% for key income, wealth and housing cost indicators
- produce reliable state and territory estimates and capital city / rest of state estimates for key indicators (detailed estimates should be used with caution, especially for Tasmania, the Northern Territory and the Australian Capital Territory)
- improve estimates from households renting from a state or territory public housing authority.

Quarterly estimates do not support all of these design targets due to the smaller sample size of each quarter.

## Final sample

The following table presents the sample used to create the quarterly estimates in this release. These will differ from the final sample (used for the annual release) due to higher office loss for preliminary estimates.

### Survey of Income and Housing, preliminary quarterly final sample, 2019–20

	Households	Persons(a)
	no.	no.
September quarter	3 235	6 208
December quarter	3 819	7 401
March quarter	3 119	5 947
June quarter	3 226	6 179
Total	13 399	25 735

a. persons aged 15 years and over

## Collection method

The survey was collected within four distinct quarters across the financial year. The four quarters of survey enumeration broadly align with pension indexation dates, rather than calendar quarters.

Selected households could complete the survey online or via interview with a trained ABS Interviewer. One adult (aged 18 years and over) acted as the household's representative and answered questions about the household's financial situation (for example rent, rates, and loan payments) on behalf of the whole household. Each person, aged 15 years and over, then completed a personal interview, answering questions about their education, employment, income, and wealth.

Interviews were conducted face-to-face with the ABS Interviewer within the selected dwelling between July 2019 and

March 2020. From late March 2020, telephone interviewing replaced face-to-face interviewing in response to Coronavirus pandemic restrictions.

## Questionnaire

The 2019-20 SIH questionnaire will be available in the survey's Concepts, Sources, and Methods release. The 2017-18 SIH questionnaire, which closely aligns to the 2019-20 questionnaire, is available within the [Survey of Income and Housing, User Guide, Australia, 2017-18 \(https://www.abs.gov.au/ausstats/abs@.nsf/PrimaryMainFeatures/6553.0?OpenDocument\)](https://www.abs.gov.au/ausstats/abs@.nsf/PrimaryMainFeatures/6553.0?OpenDocument) (cat. no. 6553.0).

## How the data is processed

Preliminary estimates involved similar but less extensive coding and editing checks than are performed on annual estimates. This includes treatment of statistical outliers and removal of households that did not provide sufficient principal information (see [Survey of Income and Housing, User Guide, Australia, 2017-18 \(https://www.abs.gov.au/ausstats/abs@.nsf/PrimaryMainFeatures/6553.0?OpenDocument\)](https://www.abs.gov.au/ausstats/abs@.nsf/PrimaryMainFeatures/6553.0?OpenDocument) (cat. no. 6553.0)).

Some more intensive processing tasks were not performed in producing preliminary estimates. This has resulted in more sample being excluded from preliminary estimates, when compared to annual estimates. Survey weights (see below) have been calibrated to compensate for this additional loss.

## Estimation methods

Every person (including children aged 0 to 14 years) and every household in the sample were assigned a weight. Initial weights were based on probability of being selected in the sample. The person and household level weights were calibrated to align with independent estimates of the in-scope population, referred to as benchmarks.

The estimates were benchmarked to the estimated resident population living in private dwellings in non-very remote areas of Australia for each quarter, excluding persons living in discrete Aboriginal and Torres Strait Islander communities. The estimates, therefore do not match estimates of the total Australian resident population (which include persons living in very remote areas and non-private dwellings, such as hotels) obtained from other sources.

The benchmarks used additional information about the population to ensure that:

- people and households in the sample represented people and households that were similar to them
- the survey estimates reflected the distribution of the target population, not the sample.

The benchmarks used in the calibration of the final weights, for each quarter and state or territory, can be categorised into two groups:

Number of persons:

- by sex, in five-year age groups up to 80+ years for all states and territories (excluding NT and ACT)
- by labour force status
- by 2016 SEIFA Index for Relative Socioeconomic Disadvantage decile of household (state level).

Numbers of households:

- by household composition (number of adults (1, 2 or 3+) and whether or not the household contains children) (except NT which only uses whether or not the household contains children).

The samples have been weighted to provide estimates for each quarter and have not been adjusted to make the

sample uniform across the year. This process is expected to have a negligible impact on annual figures represented in this release.

The preliminary estimation method targeted key data items featured in this release and will be subject to revision when final estimates are produced.

## Comparability

### Previous collections

The concepts and standards used for preliminary estimates are unchanged from previous SIH collections. Table 1 presents data from the 2017-18 (final) and 2019-20 (preliminary) collections, by quarter.

### Australian System of National Accounts

Preliminary estimates have a similar level of coherence with the Australian System of National Accounts (ASNA) to that observed in previous SIH cycles.

In comparing SIH and ASNA, adjustments are necessary for each data source to account for scope and measurement differences. As the SIH and ASNA estimates of household income and wealth have been developed for different purposes, there are a number of differences in the resulting estimates. These are covered in further detail in the [Survey of Income and Housing, User Guide, Australia, 2017-18 \(https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/6553.0Main+Features12017-18?OpenDocument\)](https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/6553.0Main+Features12017-18?OpenDocument) (cat. no. 6553.0) alongside previous cycle comparisons.

## Concepts and definitions

The concepts and definitions relating to income, wealth and housing statistics included in this release are described in [Survey of Income and Housing, User Guide, Australia, 2017-18 \(https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/6553.0Main+Features12017-18?OpenDocument\)](https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/6553.0Main+Features12017-18?OpenDocument) (cat. no. 6553.0).



## Accuracy

### Reliability of estimates

Two types of error are possible in estimates based on a sample survey:

- non-sampling error
- sampling error

### Non-sampling error

Non-sampling error is caused by factors other than those related to sample selection. It is any factor that results in the data values not accurately reflecting the true value of the population.

It can occur at any stage throughout the survey process. Examples include:

- selected people that do not respond (e.g. refusals, non-contact)
- questions being misunderstood
- responses being incorrectly recorded
- errors in coding or processing the survey data

## Sampling error

Sampling error is the expected difference that can occur between the published estimates and the value that would have been produced if the whole population had been surveyed. Sampling error is the result of random variation and can be estimated using measures of variance in the data.

### Standard error

One measure of sampling error is the standard error (SE). There are about two chances in three that an estimate will differ by less than one SE from the figure that would have been obtained if the whole population had been included. There are about 19 chances in 20 that an estimate will differ by less than two SEs.

The relative standard error (RSE) is a useful measure of sampling error. It is the SE expressed as a percentage of the estimate:

$$RSE\% = \left( \frac{SE}{estimate} \right) \times 100$$

Only estimates with RSEs less than 25% are considered reliable for most purposes. Estimates with larger RSEs, between 25% and less than 50% have been included in the publication, but are flagged to indicate they are subject to high SEs. These should be used with caution. Estimates with RSEs of 50% or more have also been flagged and are considered unreliable for most purposes. RSEs for these estimates are not published.

Another measure of sampling error is the Margin of Error (MOE). This describes the distance from the population value that the sample estimate is likely to be within and is particularly useful to understand the accuracy of proportion estimates. It is specified at a given level of confidence. Confidence levels typically used are 90%, 95% and 99%.

For example, at the 95% confidence level, the MOE indicates that there are about 19 chances in 20 that the estimate will differ by less than the specified MOE from the population value (the figure obtained if the whole population had been enumerated). The 95% MOE is calculated as 1.96 multiplied by the SE:

$$MOE = SE \times 1.96$$

The RSE can also be used to directly calculate a 95% MOE by:

$$MOE(y) \approx \frac{RSE(y) \times y}{100} \times 1.96$$

The MOEs in this publication are calculated at the 95% confidence level. This can easily be converted to a 90% confidence level by multiplying the MOE by:

$$\frac{1.615}{1.96}$$

or to a 99% confidence level by multiplying the MOE by:

$$\frac{2.576}{1.96}$$

Depending on how the estimate is to be used, an MOE of greater than 10% may be considered too large to inform decisions. For example, a proportion of 15% with an MOE of plus or minus 11% would mean the estimate could be anything from 4% to 26%. It is important to consider this range when using the estimates to make assertions about the population.

### Confidence intervals

A confidence interval expresses the sampling error as a range in which the population value is expected to lie at a given level of confidence. A confidence interval is calculated by taking the estimate plus or minus the MOE of that estimate. In other terms, the 95% confidence interval is the estimate +/- MOE.

## Calculating measures of error

Proportions or percentages formed from the ratio of two estimates are also subject to sampling errors. The size of the error depends on the accuracy of both the numerator and the denominator. A formula to approximate the RSE of a proportion is given below. This formula is only valid when the numerator (x) is a subset of the denominator (y):

$$RSE\left(\frac{x}{y}\right) \approx \sqrt{[RSE(x)]^2 - [RSE(y)]^2}$$

When calculating measures of error, it may be useful to convert RSE or MOE to SE. This allows the use of standard formulas involving the SE. The SE can be obtained from RSE or MOE using the following formulas:

$$SE = \frac{RSE\% \times estimate}{100}$$

$$SE = \frac{MOE}{1.96}$$

## Comparison of estimates

The difference between two survey estimates (counts or percentages) can also be calculated from published estimates. Such an estimate is also subject to sampling error. The sampling error of the difference between two estimates depends on their SEs and the relationship (correlation) between them. An approximate SE of the difference between two estimates (x - y) may be calculated by the following formula:

$$SE(x - y) \approx \sqrt{[SE(x)]^2 + [SE(y)]^2}$$

While this formula will only be exact for differences between unrelated characteristics or sub-populations, it provides a reasonable approximation for the differences likely to be of interest in this publication.

When comparing estimates between surveys or between populations within a survey, it is useful to determine whether apparent differences are 'real' differences or simply the product of differences between the survey samples.

One way to examine this is to determine whether the difference between the estimates is statistically significant. This is done by calculating the standard error of the difference between two estimates (x and y) and using that to calculate the test statistic using the formula below:

$$\left( \frac{|x-y|}{SE(x-y)} \right)$$

where

$$SE(y) \approx \frac{RSE(y) \times y}{100}$$

If the value of the statistic is greater than 1.96, we can say there is good evidence of a statistically significant difference at 95% confidence levels between the two populations with respect to that characteristic. Otherwise, it cannot be stated with confidence that there is a real difference between the populations.

## How the data is released

### Release strategy

### Publications

This release includes preliminary quarterly indicators for all quarters of the 2019-20 SIH.

Estimates for the full financial year from this survey will be released within:

- [Household Income and Wealth, Australia \(/statistics/economy/finance/household-income-and-wealth-australia/](https://statistics/economy/finance/household-income-and-wealth-australia/)

[latest-release\)](#)

- [Housing Occupancy and Costs, Australia \(/statistics/people/housing/housing-occupancy-and-costs/latest-release\)](#)

Preliminary estimates from the 2020-21 SIH will be published in future quarterly Household financial resources releases. Detailed publications and microdata for the full 2020-21 financial year will also be released from mid-2022.

## Microdata

For users who would like to undertake more detailed analysis, a variety of microdata products from the 2019-20 SIH will be available from late 2021.

This includes a:

- TableBuilder product
- Confidentialised Unit Record File (CURF)
- Detailed Microdata File available via the DataLab.

Information about current microdata services is available from the [Microdata Entry Page \(https://www.abs.gov.au/websitedbs/D3310114.nsf/home/Microdata+Entry+Page\)](https://www.abs.gov.au/websitedbs/D3310114.nsf/home/Microdata+Entry+Page).

## Confidentiality

The Census and Statistics Act 1905 authorises the ABS to collect statistical information, and requires that information is not published in a way that could identify a particular person or organisation. The ABS must make sure that information about individual respondents cannot be derived from published data.



## Glossary

### Show all

A fully glossary is available in the [Survey of Income and Housing, User Guide, Australia, 2017-18 \(https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/6553.0Glossary12017-18\)](https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/6553.0Glossary12017-18) (cat. no. 6553.0).

Additional terms referenced in this release include:

### Coronavirus supplement

A \$550 per fortnight supplement payment for new and existing recipients of JobSeeker, Parenting Payment, Youth Allowance for jobseekers, Farm Household Allowance and Special Benefit, paid from 27 April 2020.

### COVID-19 early access superannuation scheme

In the 2019–20 financial year, eligible individuals adversely financially affected by COVID-19 were able to apply to access up to \$10,000 of their superannuation early, between 20 April 2020 and 30 June 2020.

### Dissaving action

Any action where spending is greater than income, thereby reducing already accumulated savings or leading to borrowing to finance the expenditure. Examples of dissaving actions include any of the following actions because money was needed for basic living expenses:

- reducing home loan repayments

- drawing on savings or term deposits
- increasing balance owed on credit cards by \$1,000 or more
- entering into a loan agreement with family or friends
- taking out a personal loan
- selling household goods or jewellery
- selling shares or other assets.

## Financial stress

A range of items which provide a subjective measure of the household's economic well-being. One person in each household was asked to provide assessments of the current household's circumstances. Items include management of household income, present standard of living compared with two years ago, ability to raise emergency money, and a range of cash flow problems.

## JobKeeper payment

The JobKeeper payment scheme is a subsidy for businesses significantly affected by Coronavirus (COVID-19). It was introduced in April 2020 to help employers with the costs of their employees' wages.

## JobSeeker payment

The JobSeeker payment scheme provides financial help for working aged Australians (aged between 22 and Age Pension age) who are looking for work or sick or injured and can't do usual work or study for a short time. JobSeeker payment was introduced on 20 March 2020 to replace the Newstart Allowance.

## Socio-Economic Indexes for Areas (SEIFA)

Socio-Economic Indexes for Areas (SEIFA) is a product developed especially for those interested in the assessment the welfare of Australian communities. The ABS has developed a set of indexes to allow ranking of regions/areas, providing a method of determining the level of social and economic well-being in each region. For further information about the SEIFAs, see [Census of Population and Housing: Socio-Economic Indexes for Areas \(SEIFA\) 2016](https://www.abs.gov.au/ausstats/abs@.nsf/mf/2033.0.55.001) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/2033.0.55.001>) (cat. no. 2033.0.55.001).

Feedback

## Abbreviations

### Show all

A list of abbreviations is available in the [Survey of Income and Housing, User Guide, Australia, 2017-18](https://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/6553.0Abbreviations12017-18?opendocument&tabname=Notes&prodno=6553.0&issue=2017-18&num=&view=) (<https://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/6553.0Abbreviations12017-18?opendocument&tabname=Notes&prodno=6553.0&issue=2017-18&num=&view=>) (cat. no. 6553.0).

Additional terms referenced in this release include:

COVID-19	Coronavirus disease 2019
APRA	Australian Prudential Regulation Authority